



Test Monitoring Center


@ Carnegie Mellon University
6555 Penn Avenue, Pittsburgh, PA 15206, USA

<http://astmtmc.cmu.edu>
412-365-1000

MEMORANDUM: 15-019

DATE: May 21, 2015

TO: Don Bell, Chairman, OSCT Surveillance Panel

FROM: Scott Parke 

SUBJECT: OSCT Reference oil testing from October 1, 2014 through March 31, 2015

Please find attached a summary of reference oil testing activity this period.

SDP/sdp/mem15-019.sdp.doc

cc: Frank Farber
Jeff Clark

OSCT Surveillance Panel

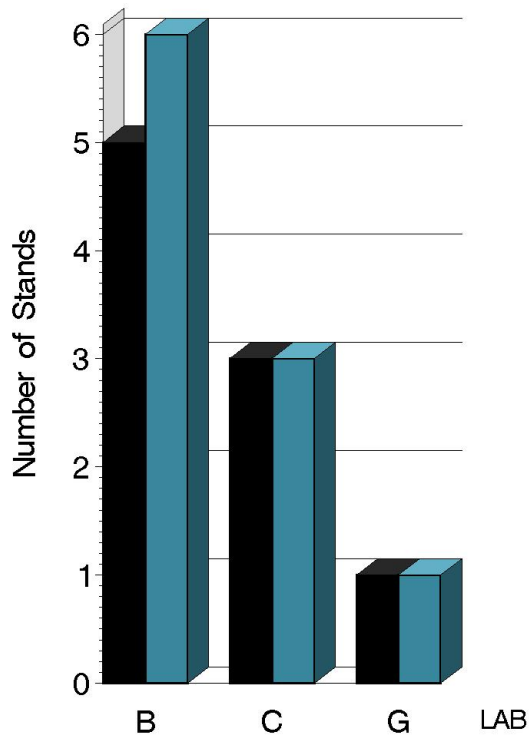
<ftp://ftp.astmtmc.cmu.edu/docs/gear/osct/semiannualreports/osct-04-2015.pdf>

Distribution: email

OSCT (D5662)

	Reporting Data	Calibrated on 3-31-15
Number of Labs	3	3
Number of Stands	10	10

BY-LAB STAND
DISTRIBUTION



Report Period: ■ Current ■ Previous

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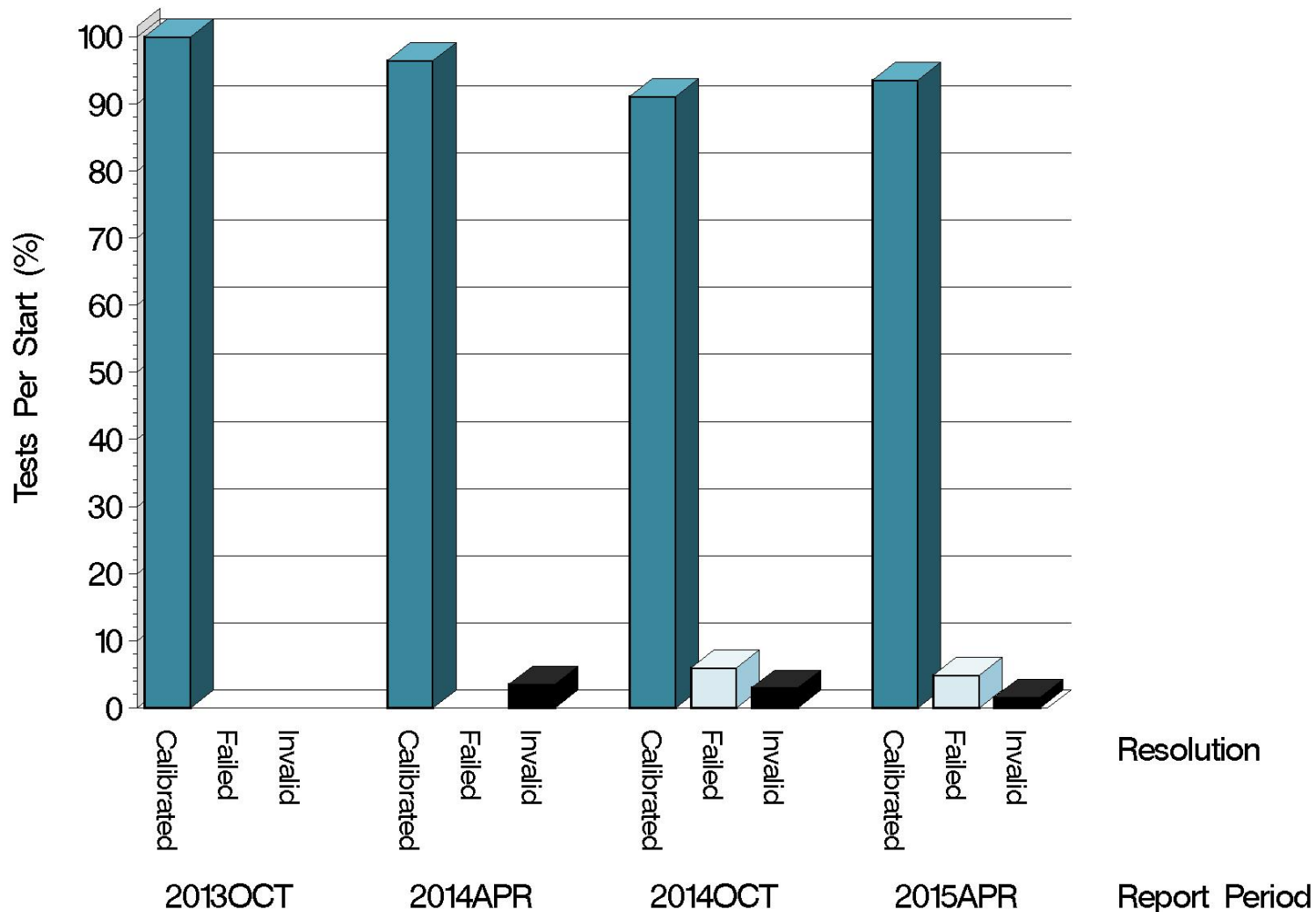
OSCT (D5662)

Test Distribution by Elastomer and Validity

					Totals	
					Last Period	This Period
		FL	NI	PA		
Accepted for calibration	AC	21	15	22	61	58
Rejected (low result)	OC	0	1	0	4	1
Rejected (high result)	OC	1	0	0	0	1
Rejected (combination)	OC	0	0	1	0	1
Invalidated	RC	0	0	1	0	1
Aborted	XC	0	0	0	2	0
Elastomer approval run	NI	14	12	14	20	40
Unacceptable approval run	MI	2	0	6	1	8
Total		38	28	44	88	110

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CALIBRATION ATTEMPT SUMMARY



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CAUSES FOR LOST TESTS

Lab	Cause	Oil			Validity			Loss Rate		
		FL	NI	PA	LC	RC	XC	Lost	Starts	%
B	Expired elastomer used.			●		●		1	58	2%
	Lost	0	0	1	0	1	0			
	Starts	38	28	44	110	110	110			
	%	0%	0%	2%	0%	1%	0%			

Lost tests are calibration attempts that were either aborted or operationally invalid

Additionally, two FL396 batch approval runs from lab G were invalid for running for 14 days and one PA350 approval run from lab B was invalid for running the wrong oil.

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Average Δ /s by Lab

Elastomer	Lab	n	PELA	PVCA	SAHA
FL	B	13	0.477	-0.426	-0.557
	C	7	0.716	0.826	-0.558
	G	2	-1.445	-0.528	0.692
	Industry	22	0.378	-0.037	-0.444
	Shift*	22	2.843%	-0.020%	-0.615 pts.
NI	B	11	-0.181	0.060	0.041
	C	5	-0.082	-0.113	0.401
	Industry	16	-0.150	0.006	0.153
	Shift*	16	-0.835%	0.003%	0.194 pts.
PA	B	13	0.436	-0.025	0.174
	C	7	0.022	0.696	-0.775
	G	3	-0.133	-1.982	2.414
	Industry	23	0.236	-0.061	0.178
	Shift*	23	5.096%	-0.121%	0.455 pts.

*computed using historic pooled s

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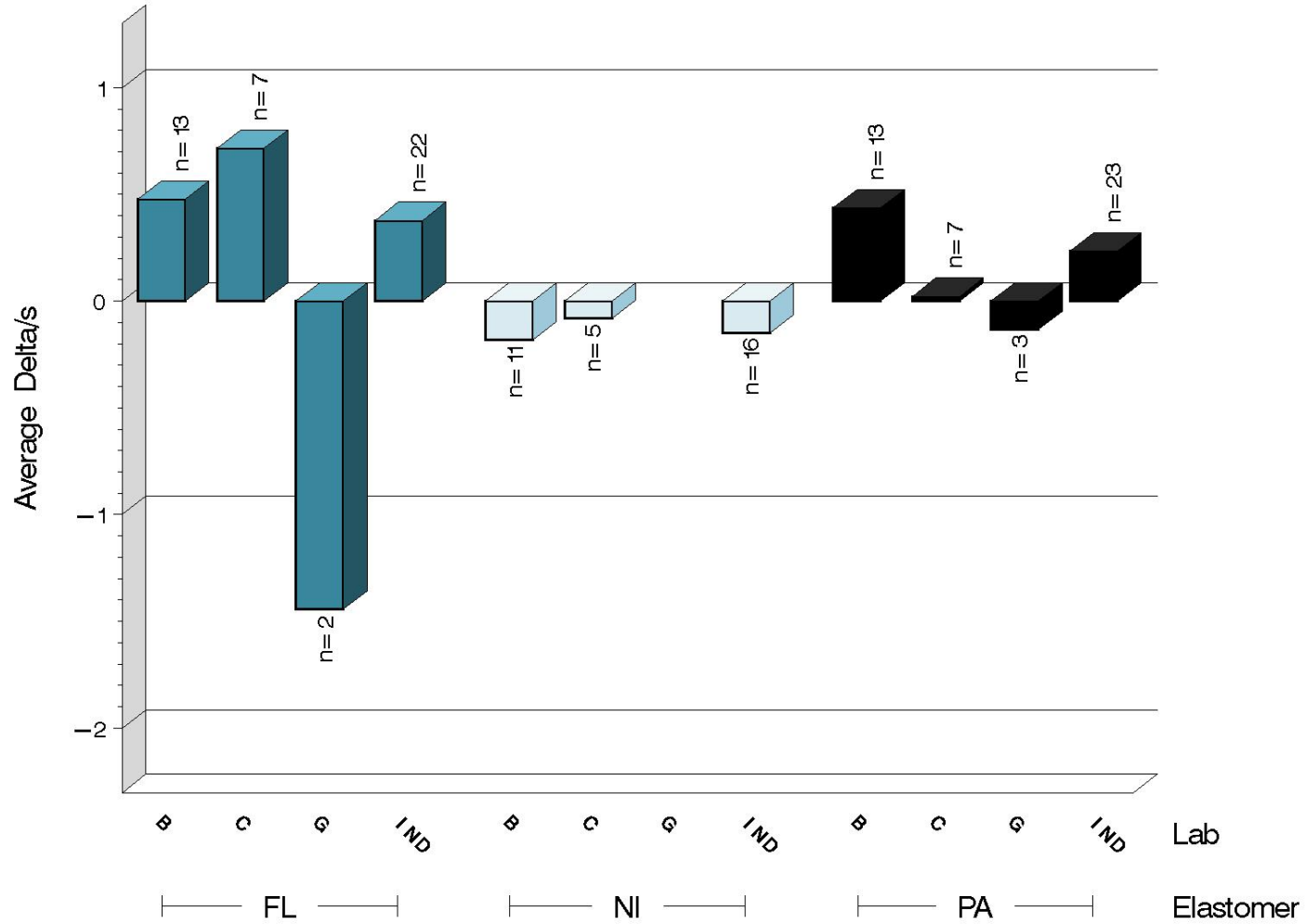


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OSCT (D5662)

%ELONGATION SEVERITY

DELTA/S BY LAB

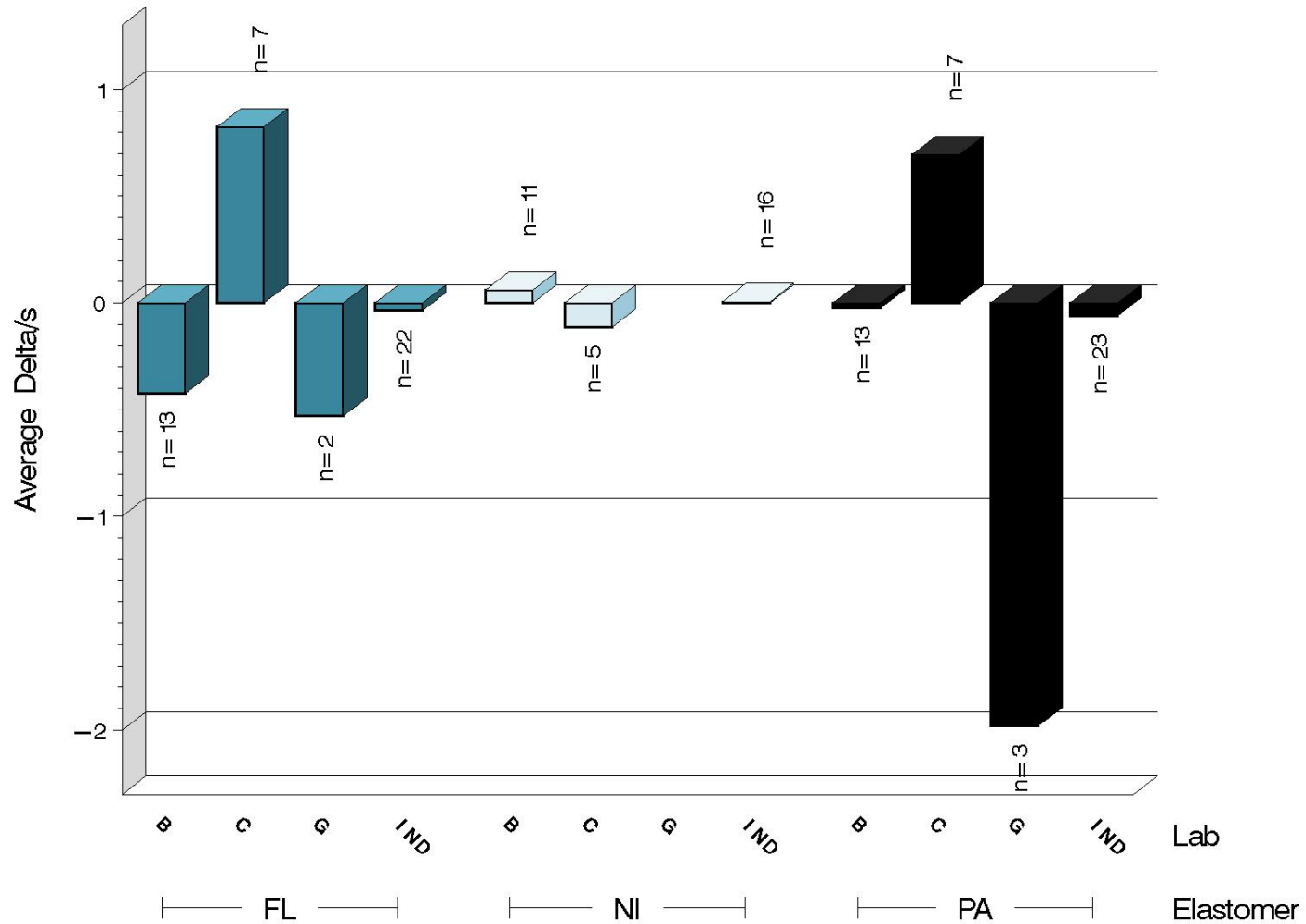


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OSCT (D5662)

%VOLUME CHANGE SEVERITY

DELTA/S BY LAB

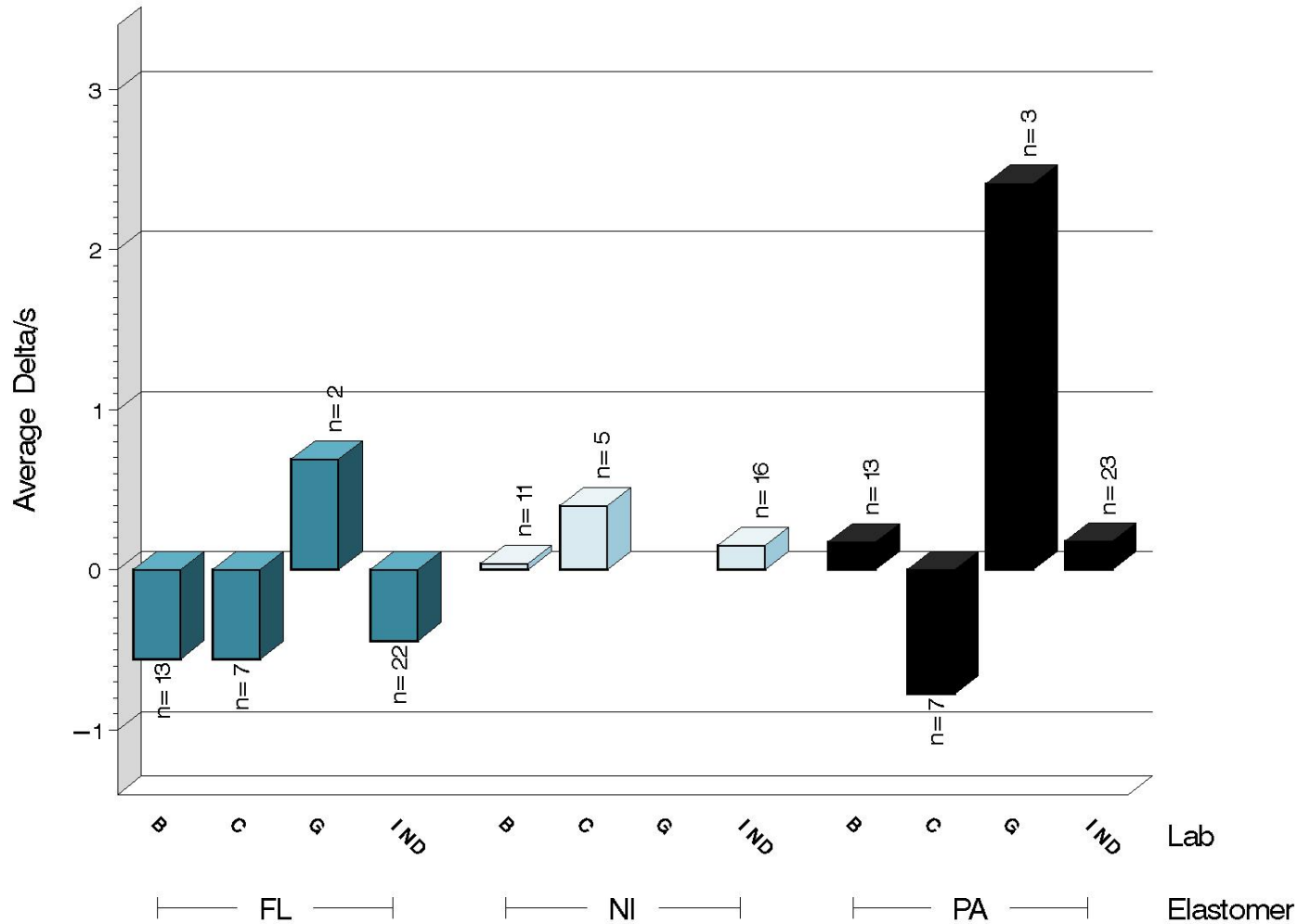


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OSCT (D5662)

S.A. HARDNESS SEVERITY

DELTA/S BY LAB

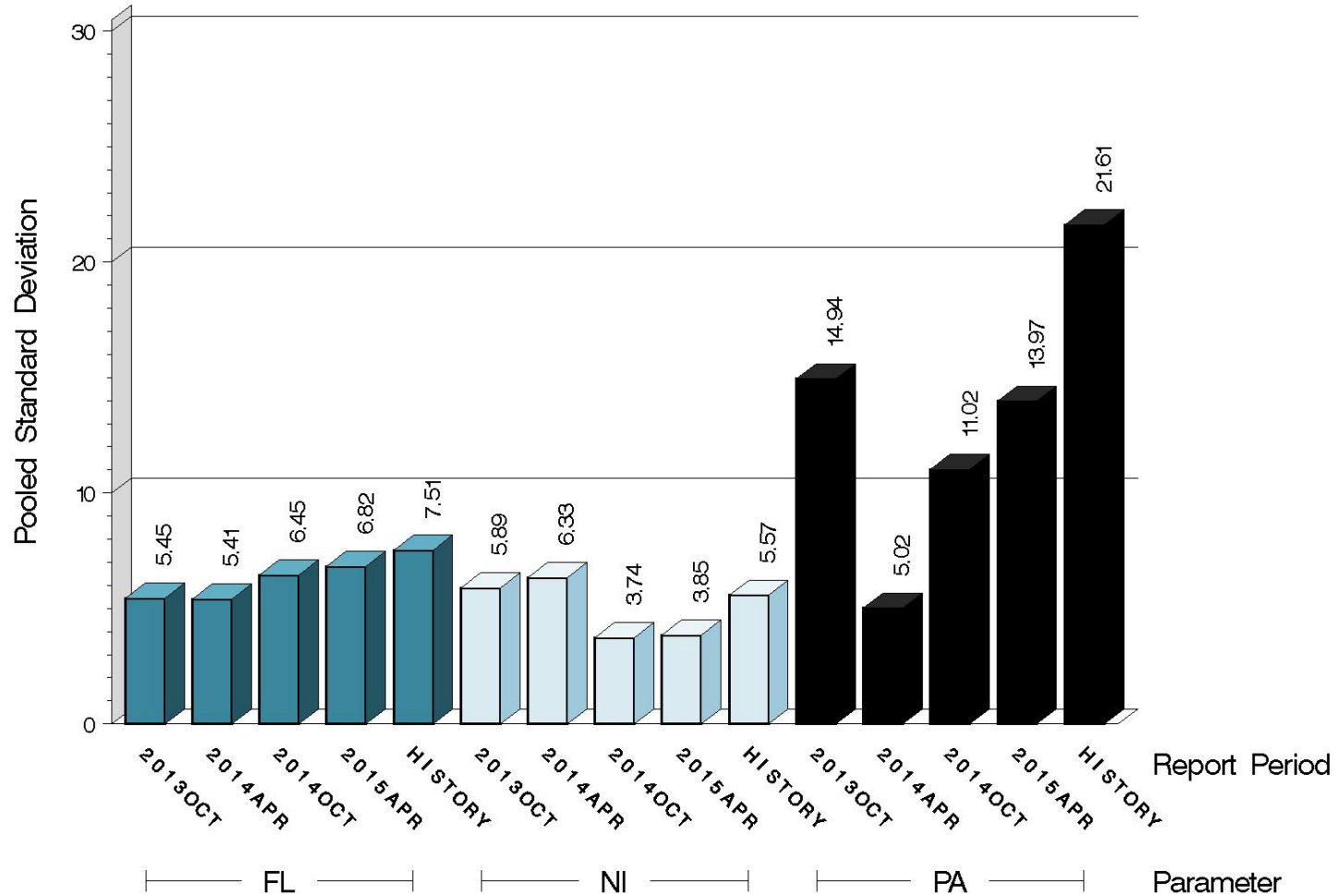


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OSCT (D5662)

%ELONGATION PRECISION

POOLED STANDARD DEVIATION
BY SIX-MONTH ASTM REPORT PERIOD

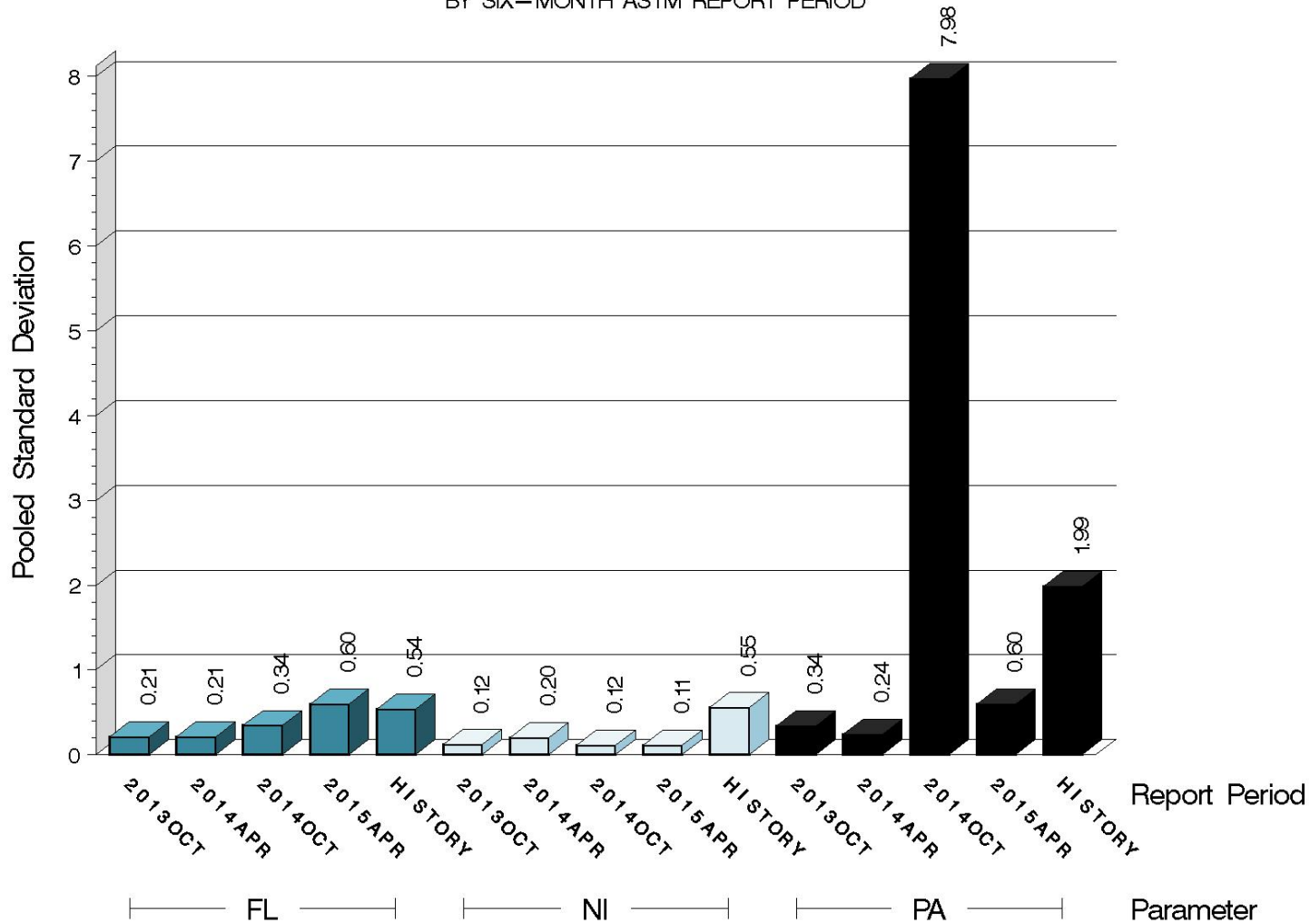


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OSCT (D5662)

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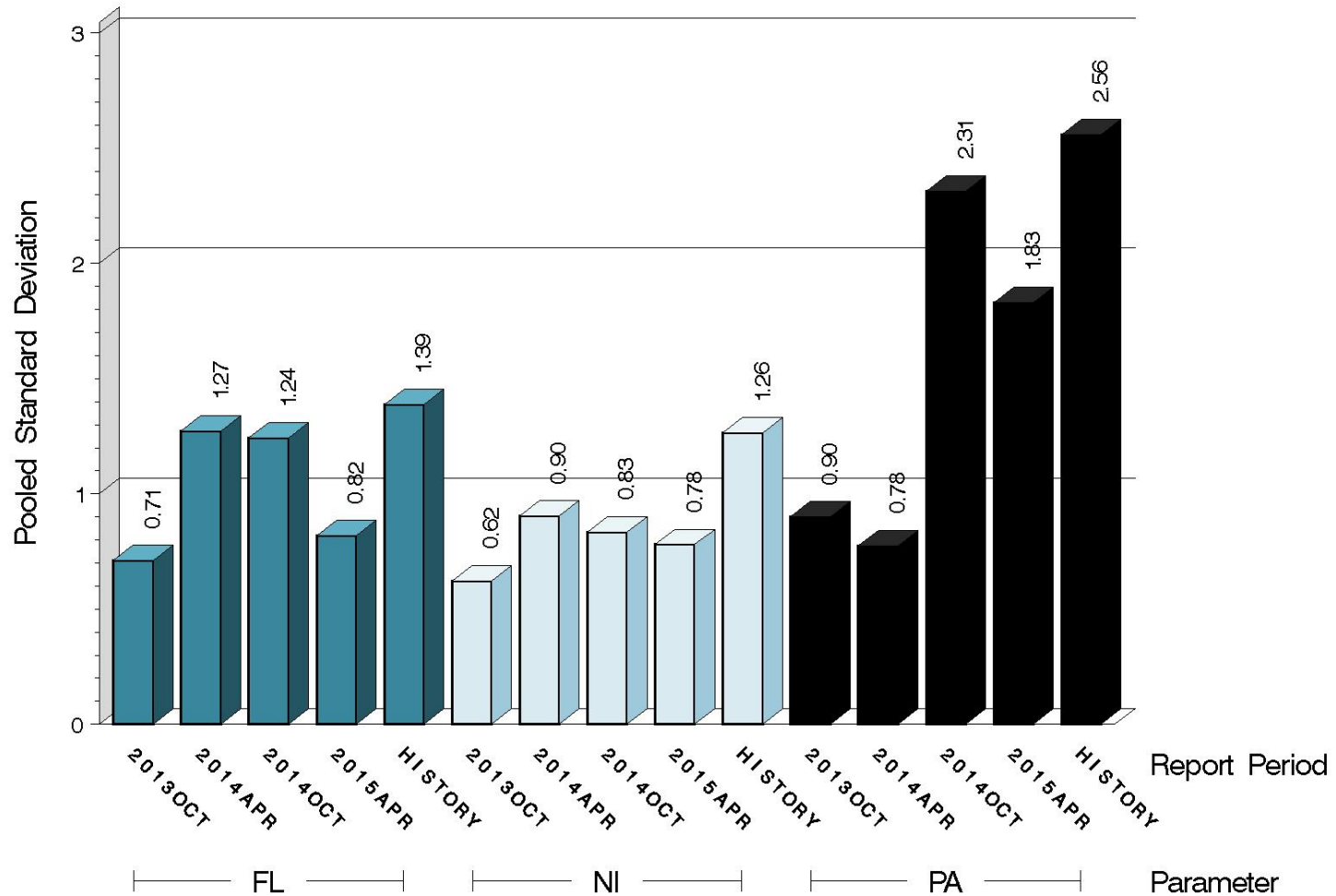


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OSCT (D5662)

S.A. HARDNESS PRECISION

POOLED STANDARD DEVIATION
BY SIX-MONTH ASTM REPORT PERIOD



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OSCT (D5662)

SUMMARY OF SEVERITY & PRECISION

Severity

The combined-elastomer industry charts show severity for all parameters within limits over this report period.

The by-elastomer charts are also unremarkable for the current period.

Precision

Precision for all parameters remained within limits this period.

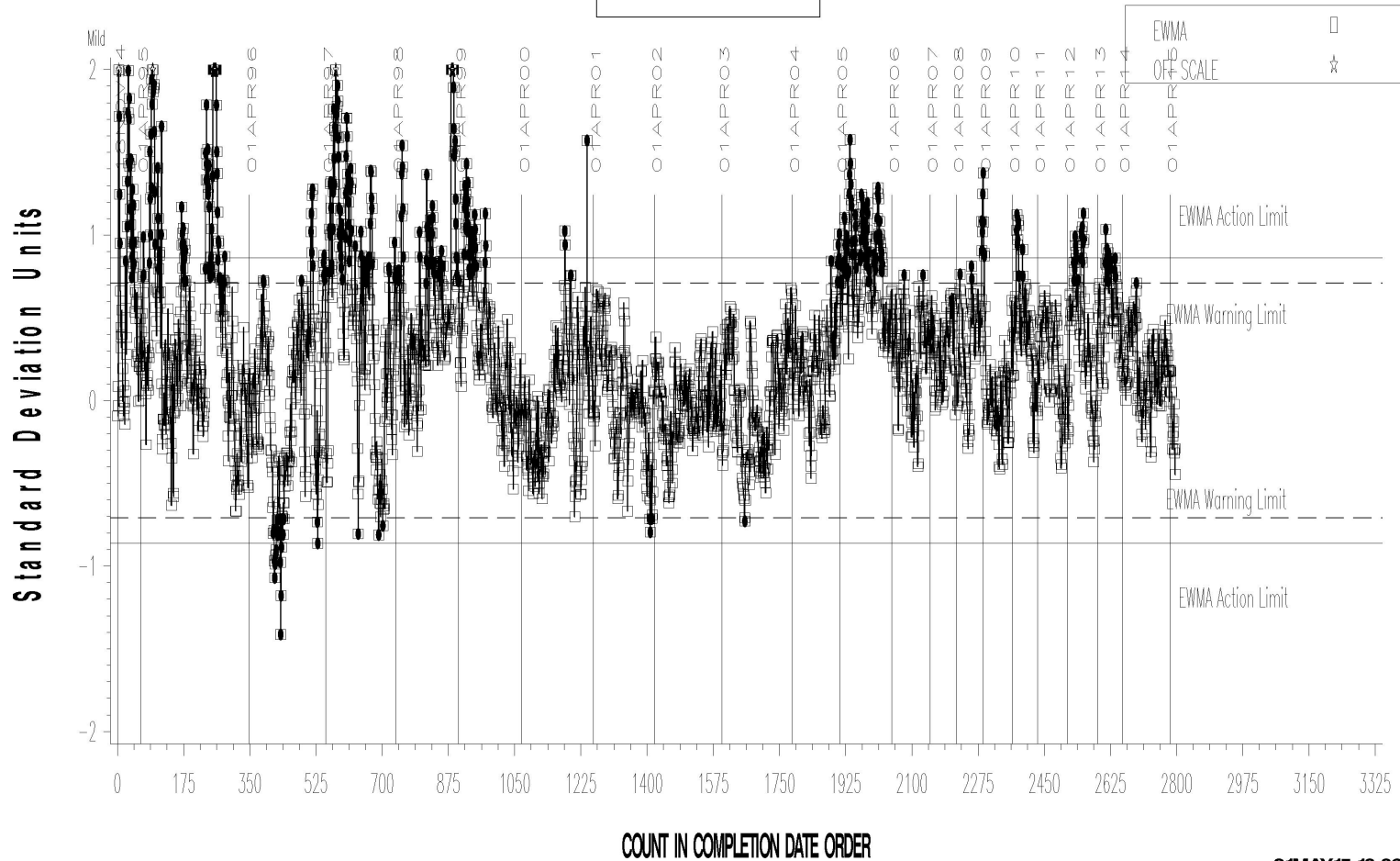
Industry control charts follow.

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OSCT INDUSTRY OPERATIONALLY VALID DATA

REF. ELONGATION CHANGE AVG.

LTMS Severity Analysis



Severp

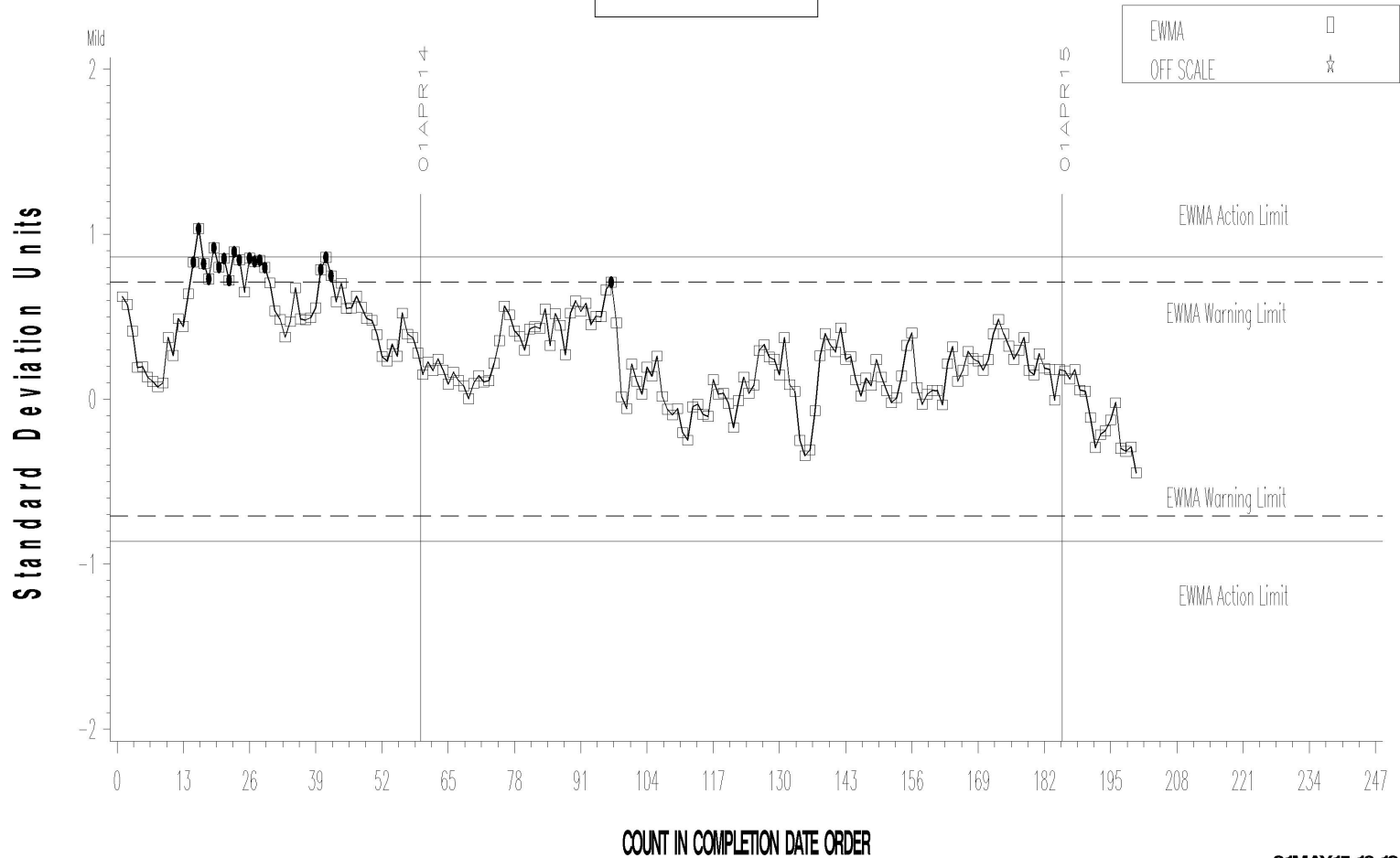
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LTMS Severity Analysis



Severp

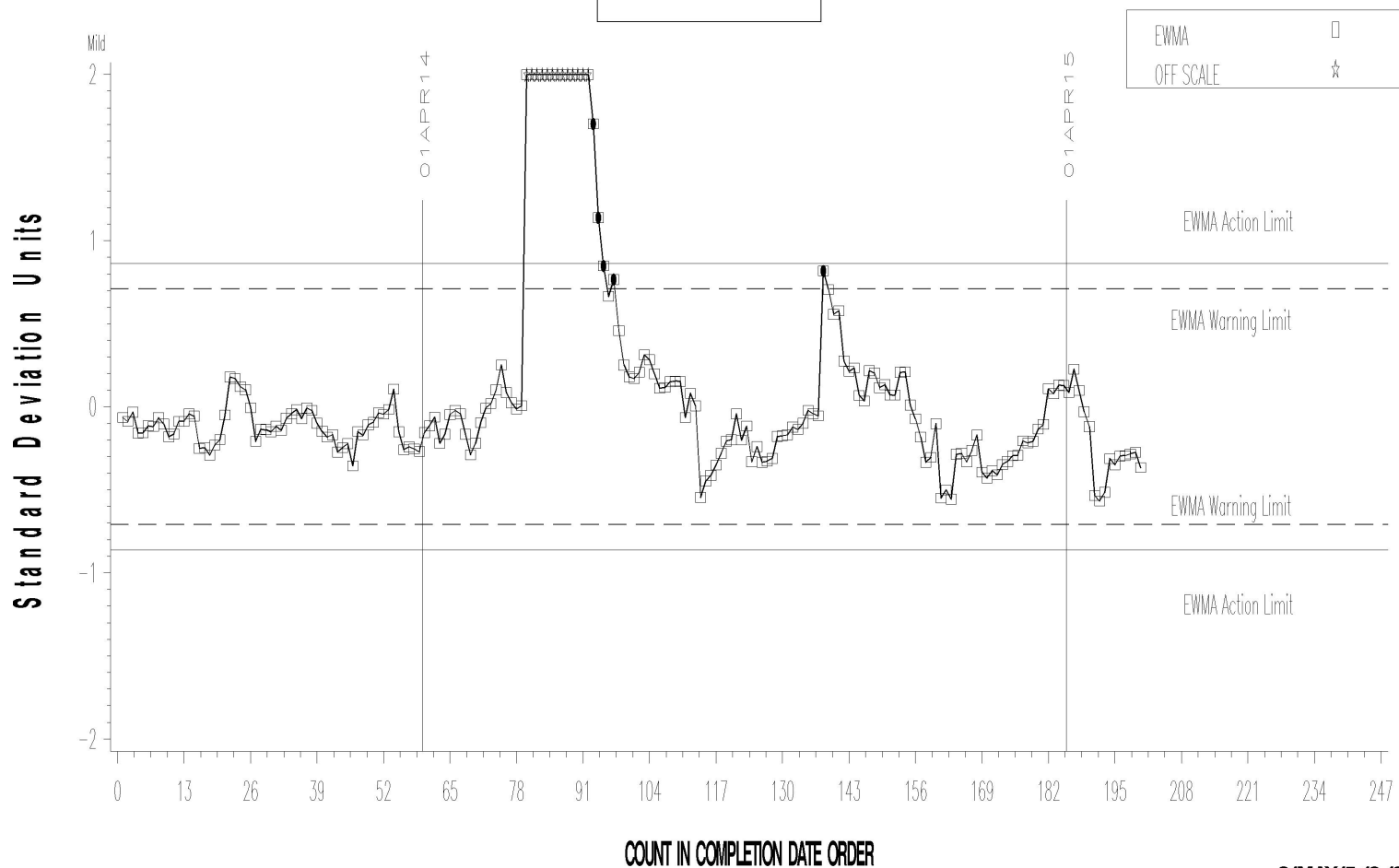
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LTMS Severity Analysis



SPVPRP

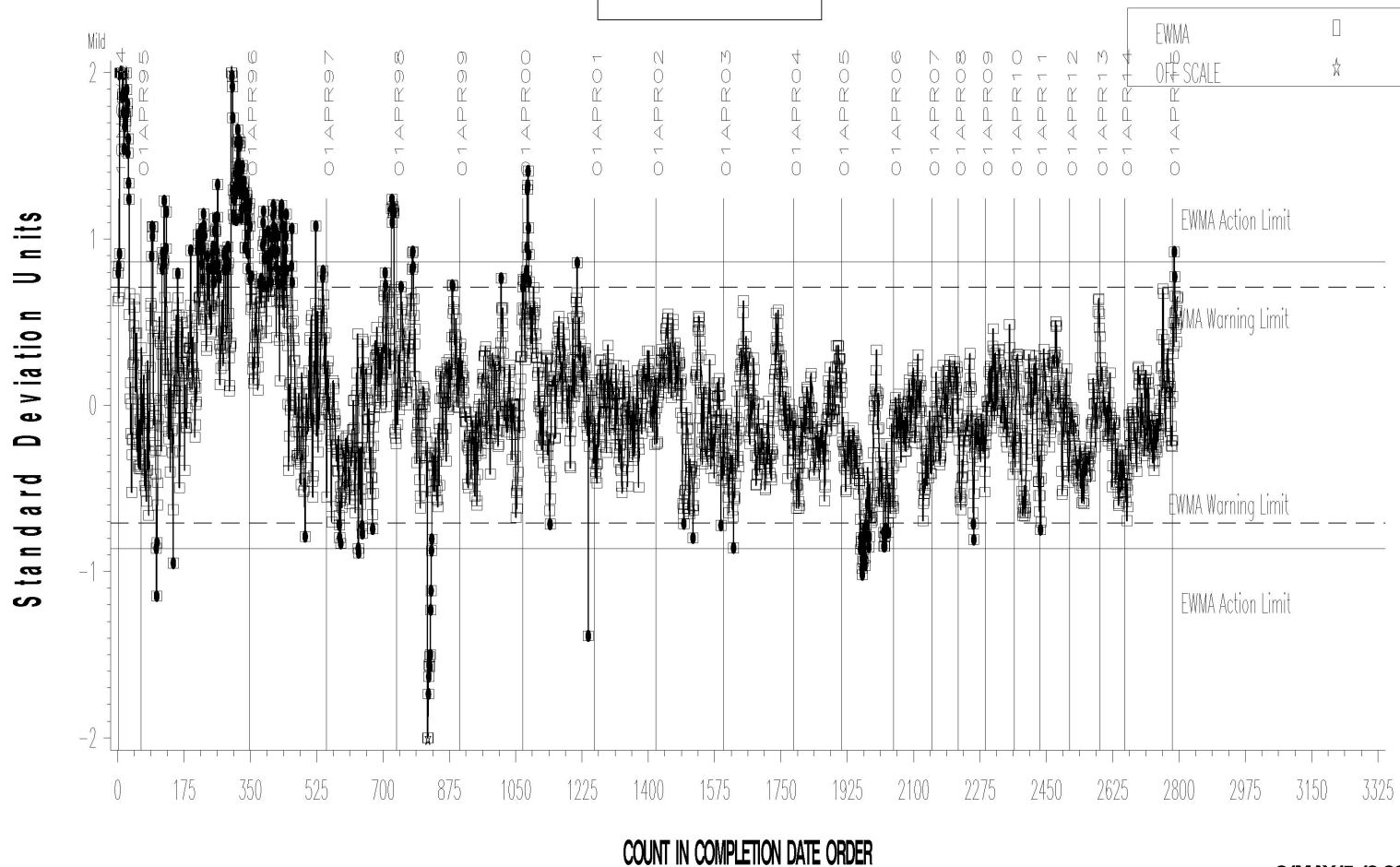
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LTMS Severity Analysis



SP4ERP

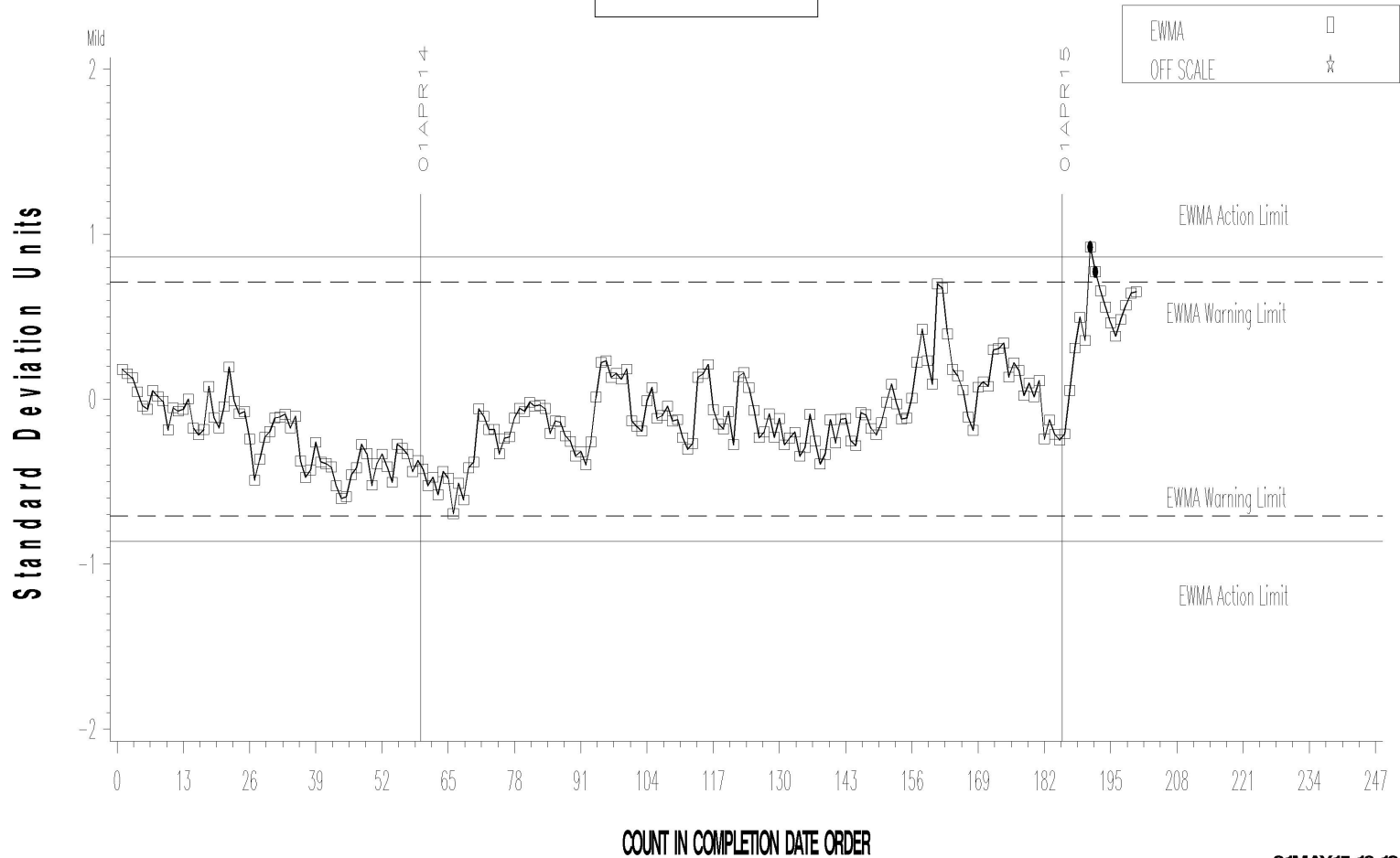
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Severp

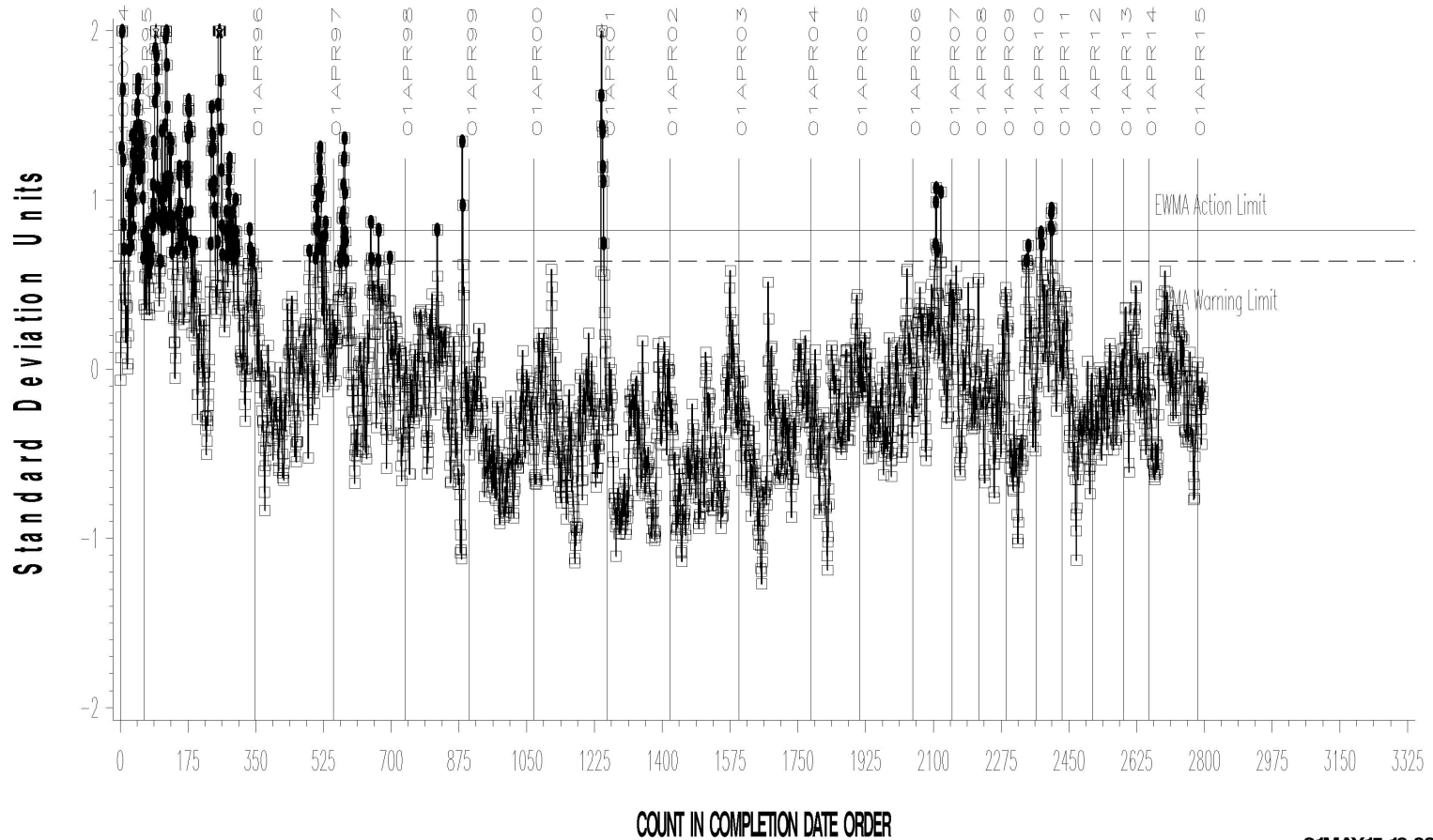
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LTMS Precision Analysis



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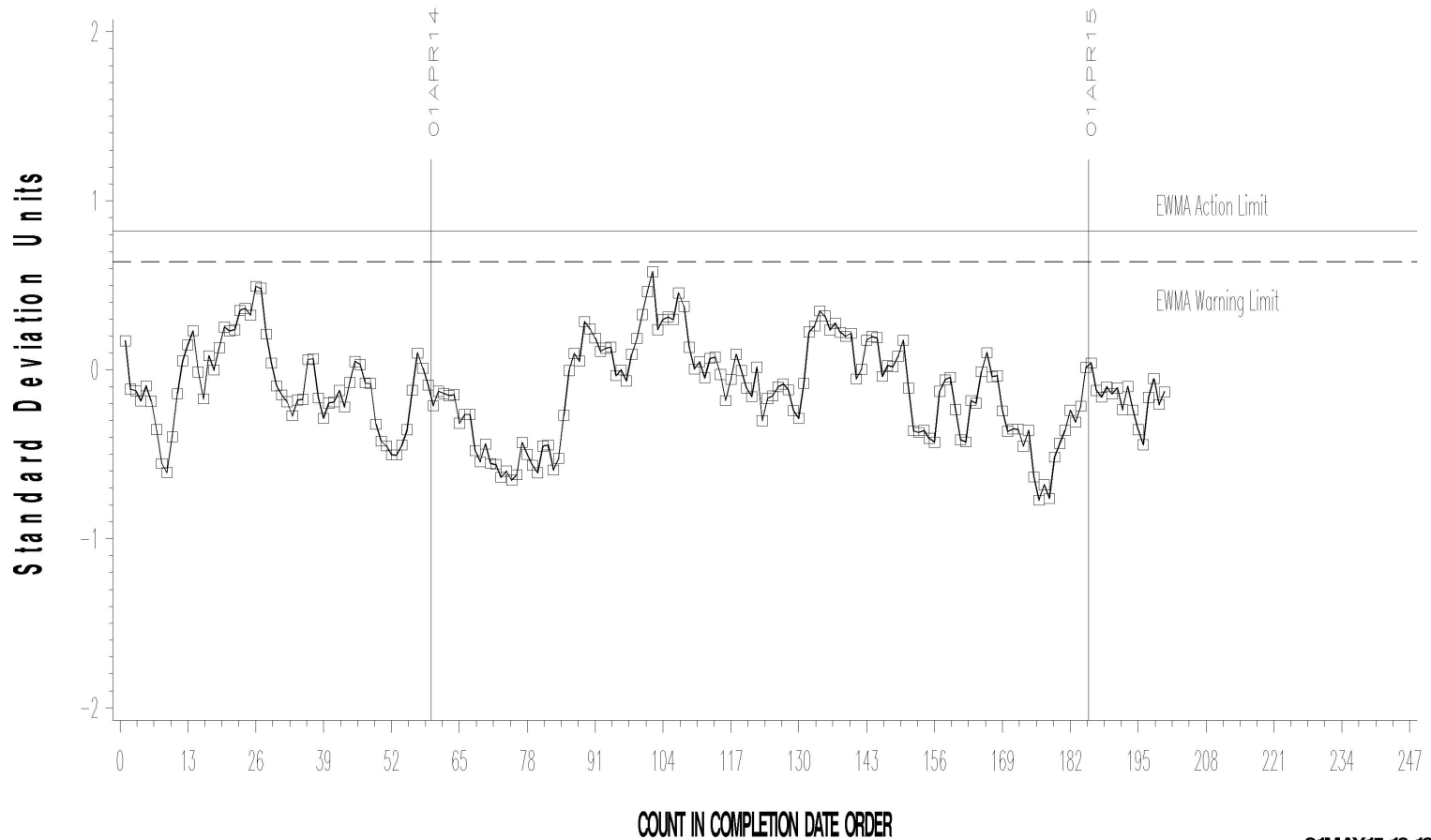
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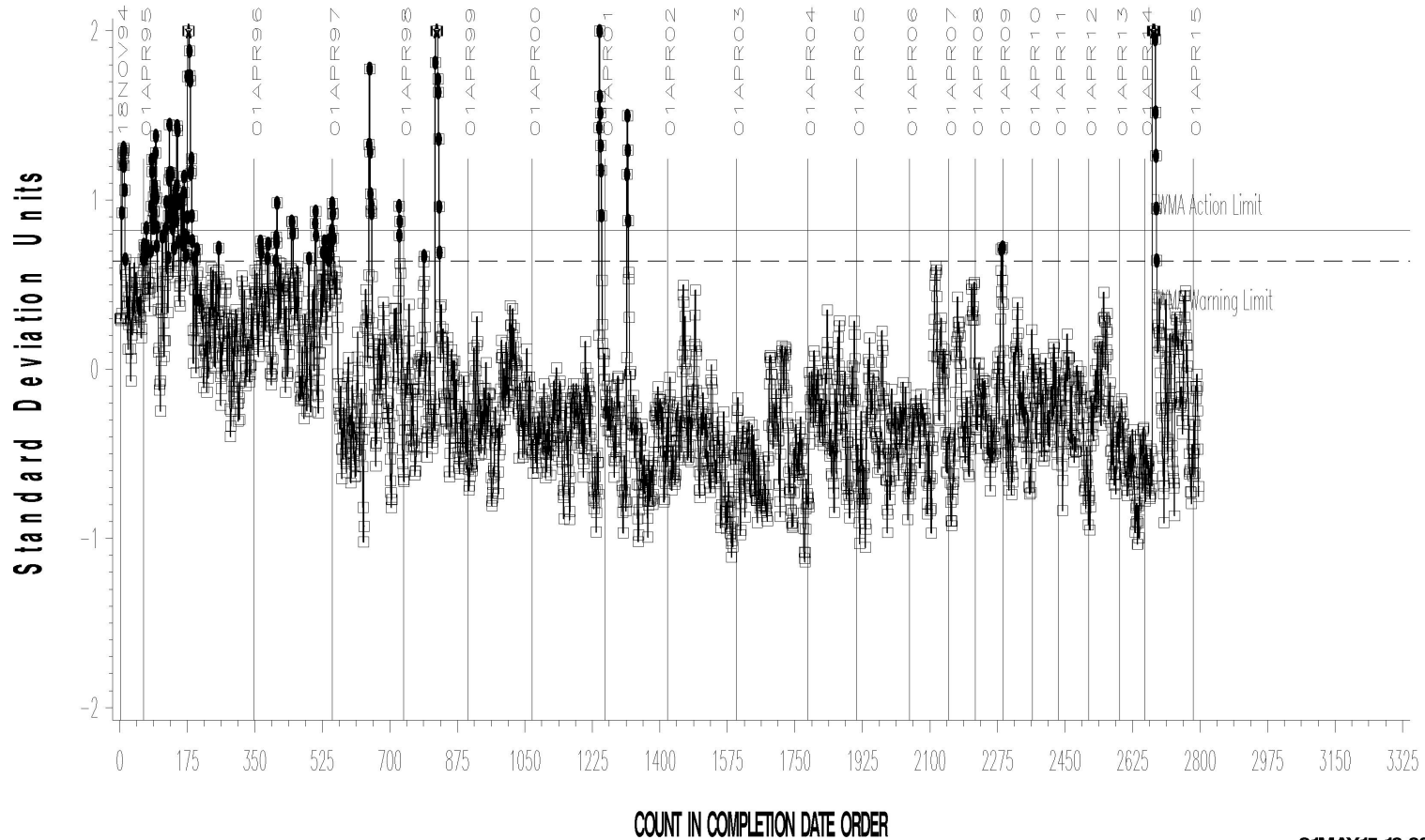
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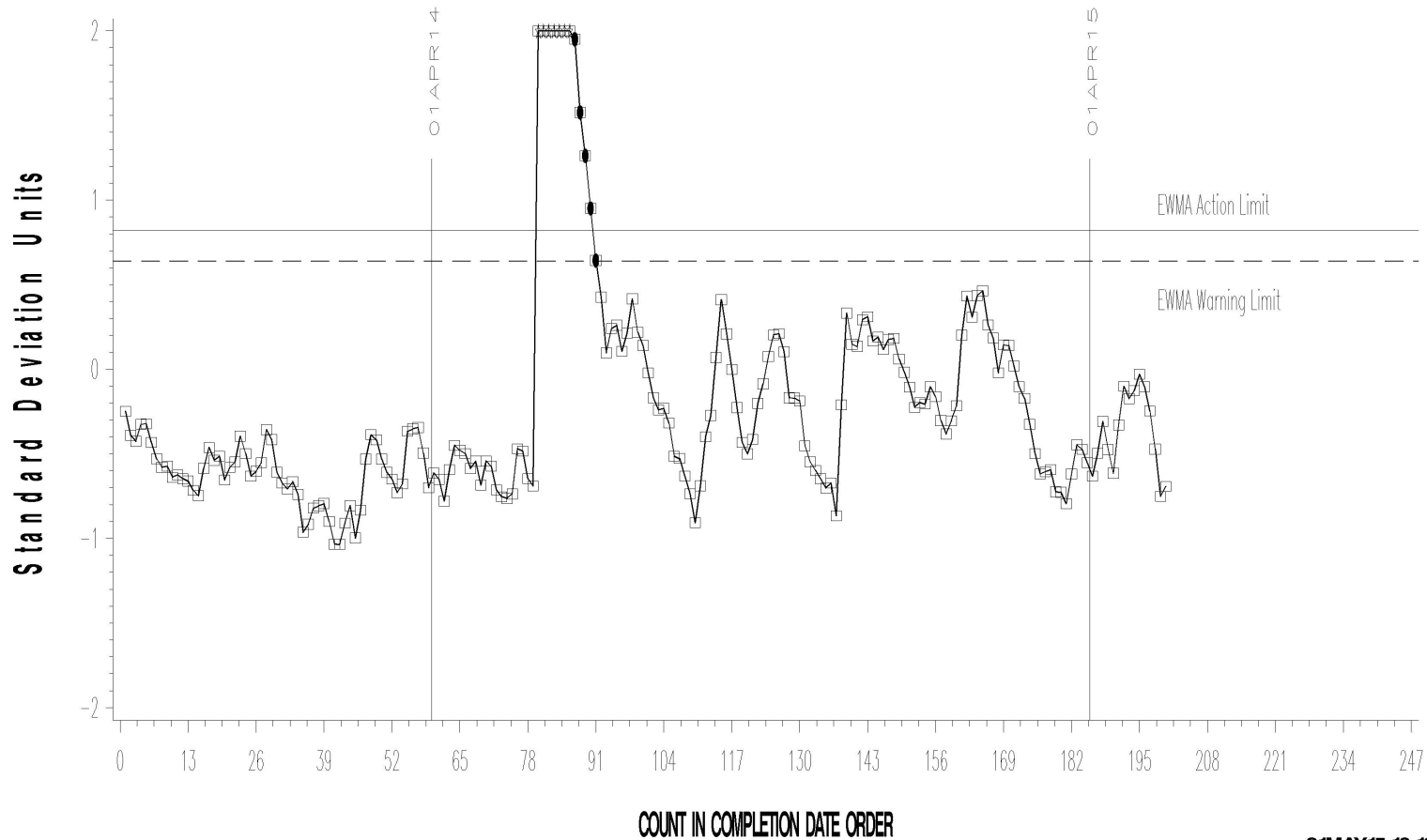
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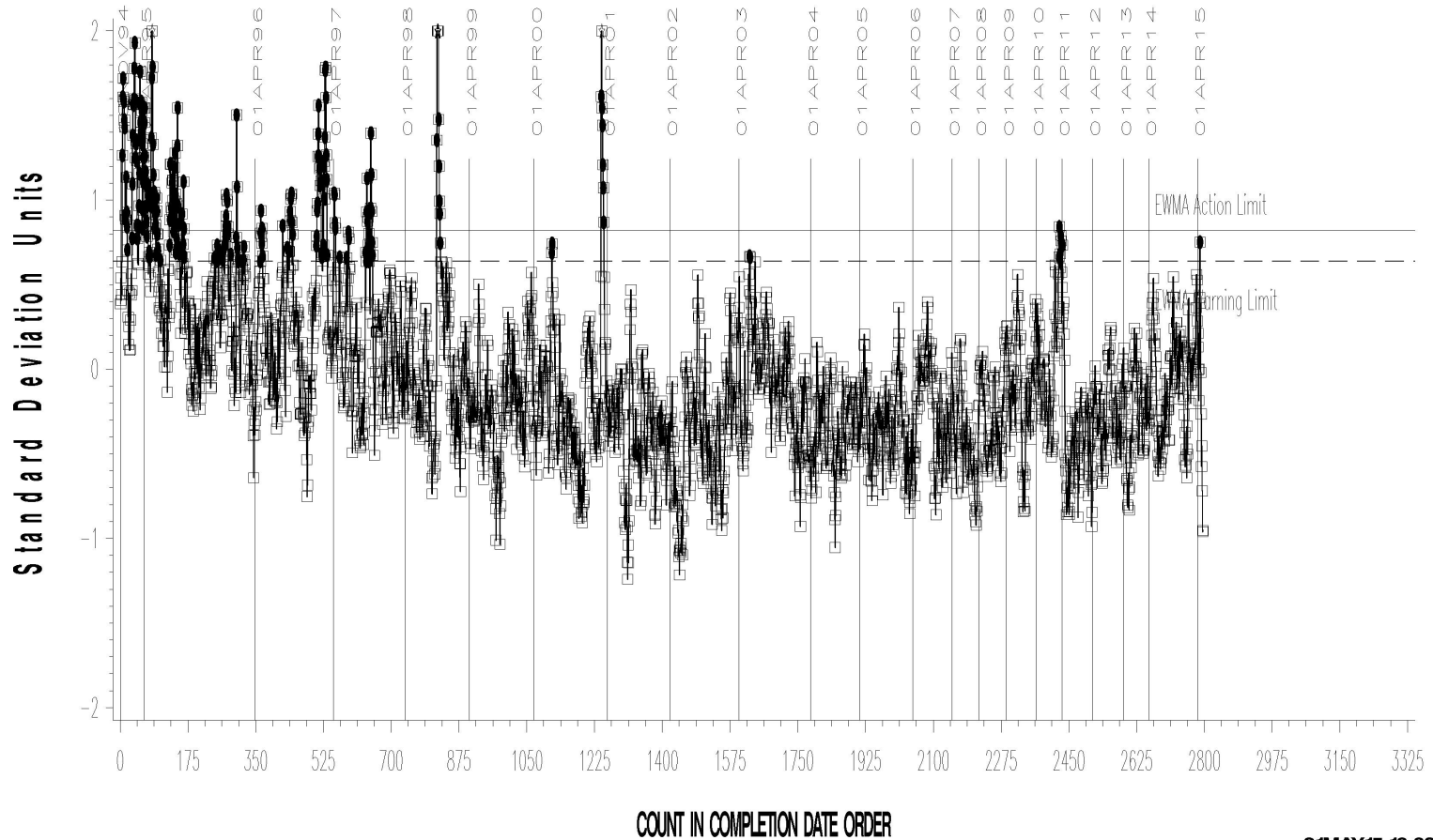
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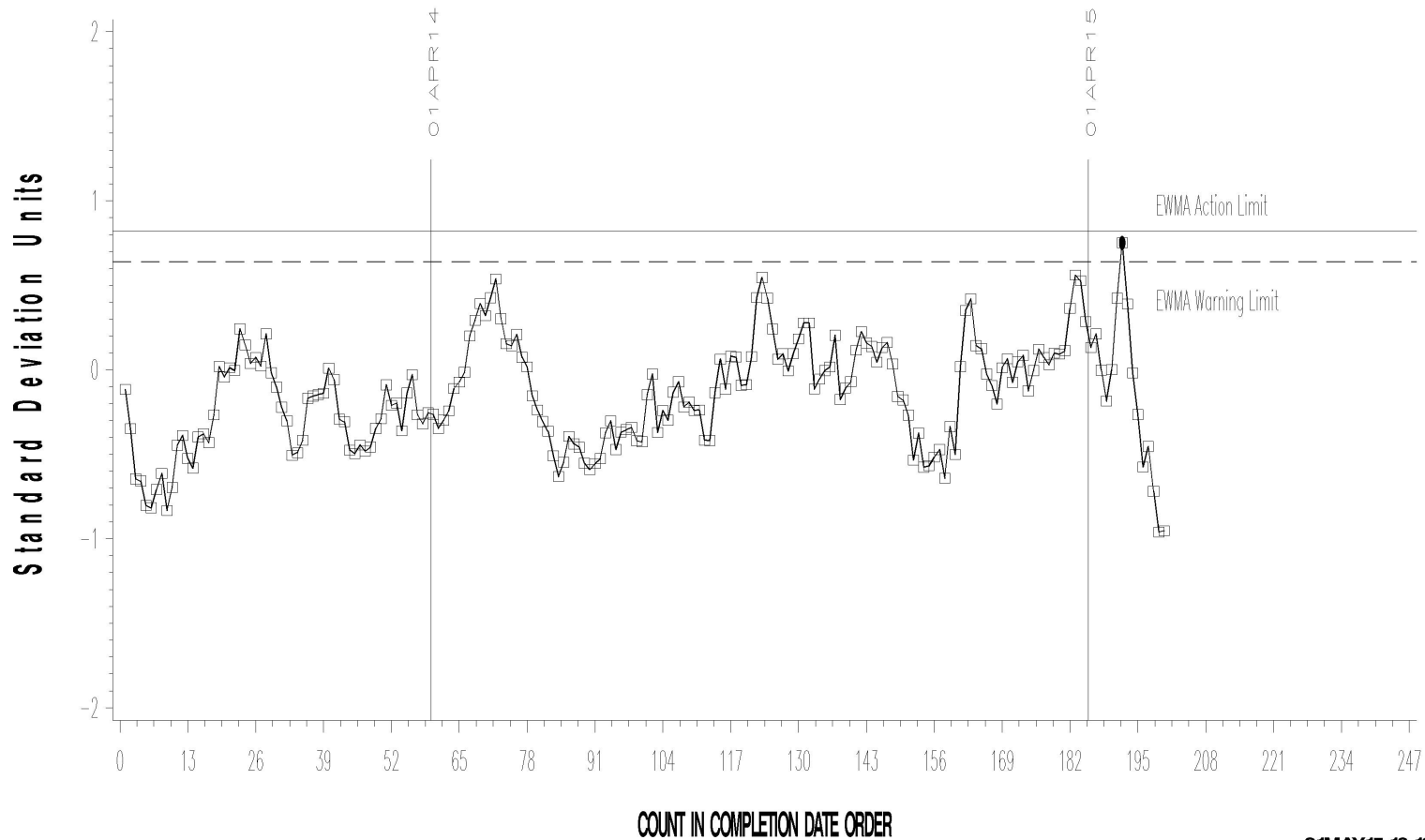
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LTMS Precision Analysis



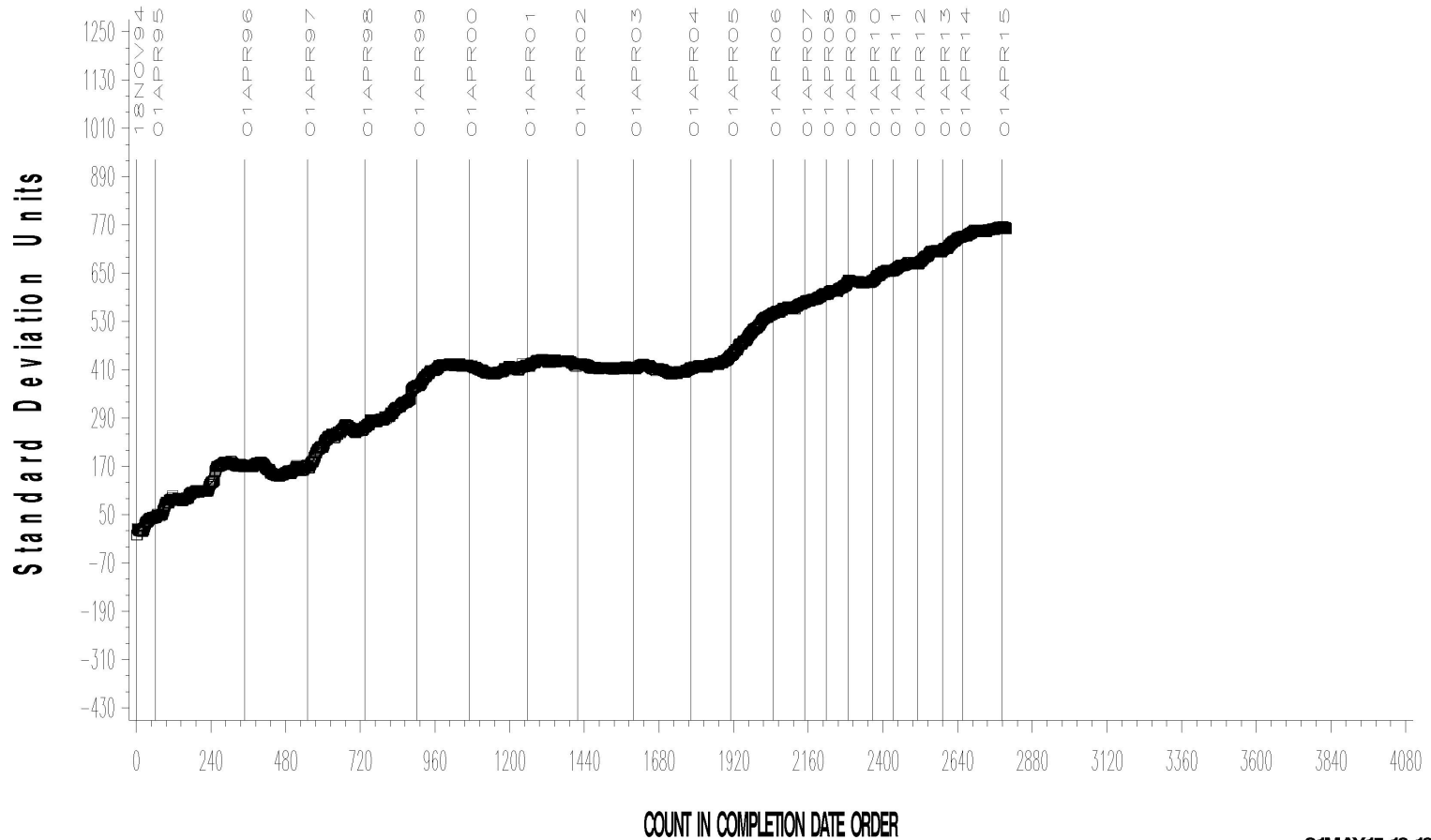
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CUSUM Severity Analysis



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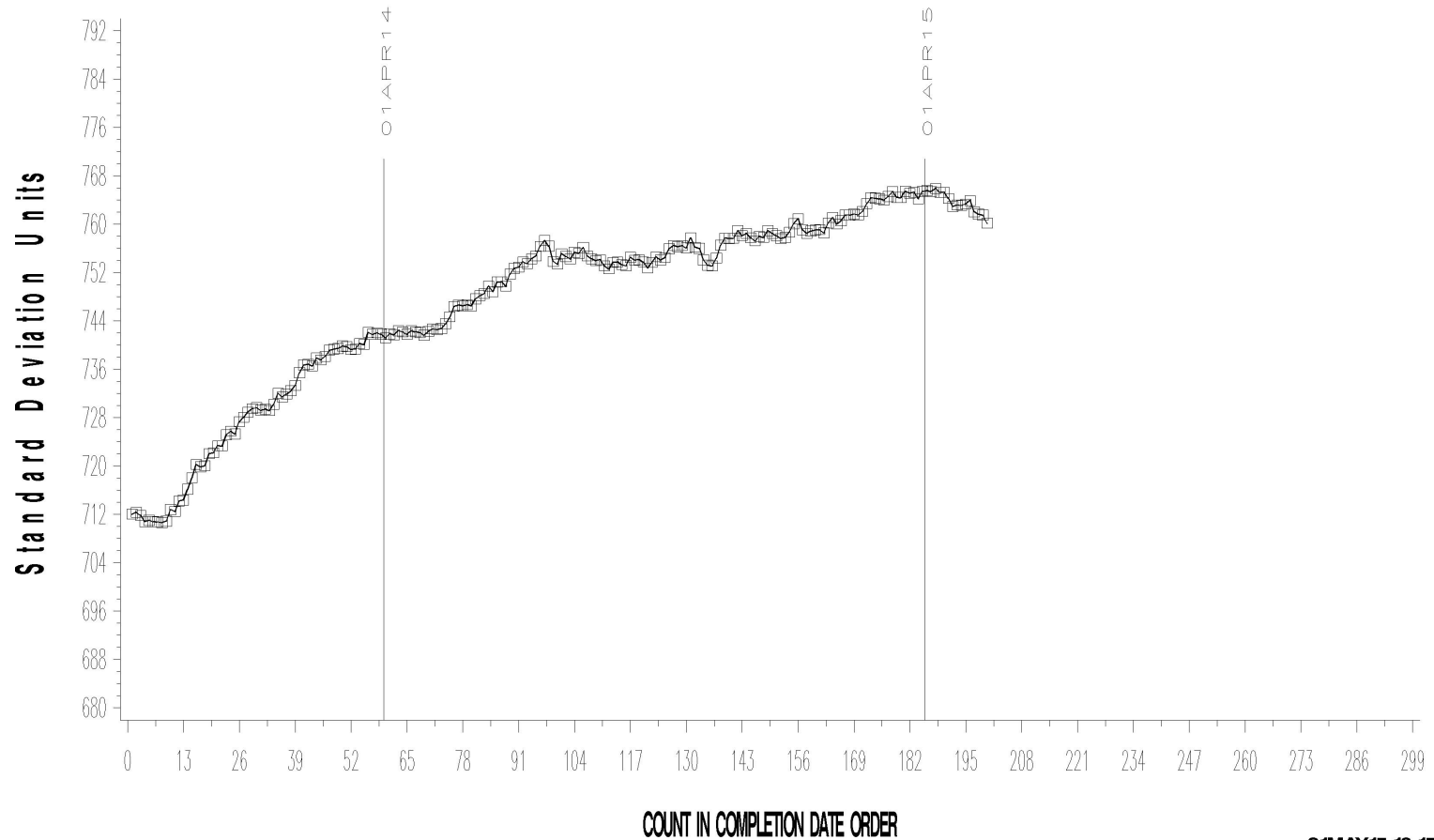
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CUSUM Severity Analysis



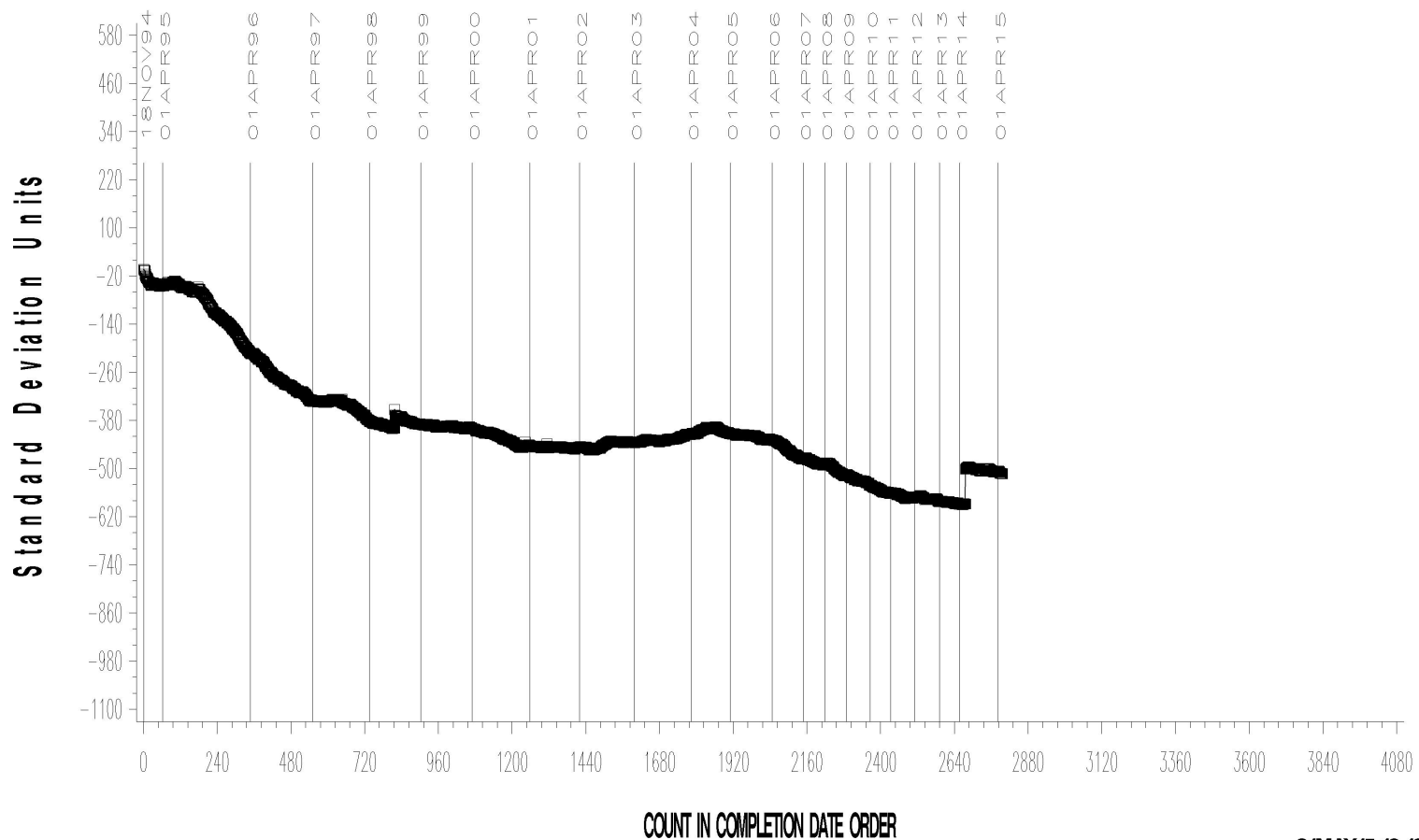
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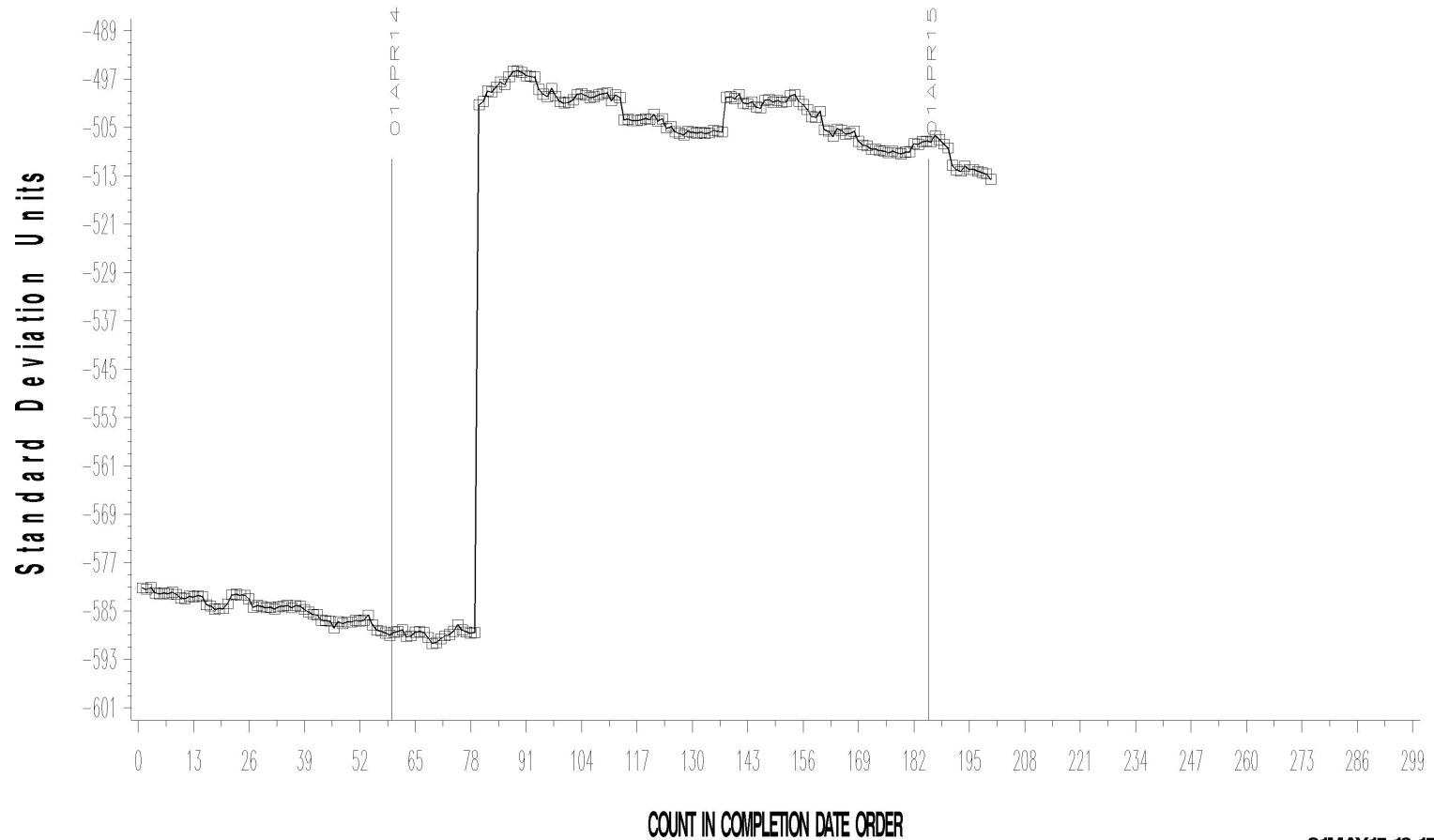
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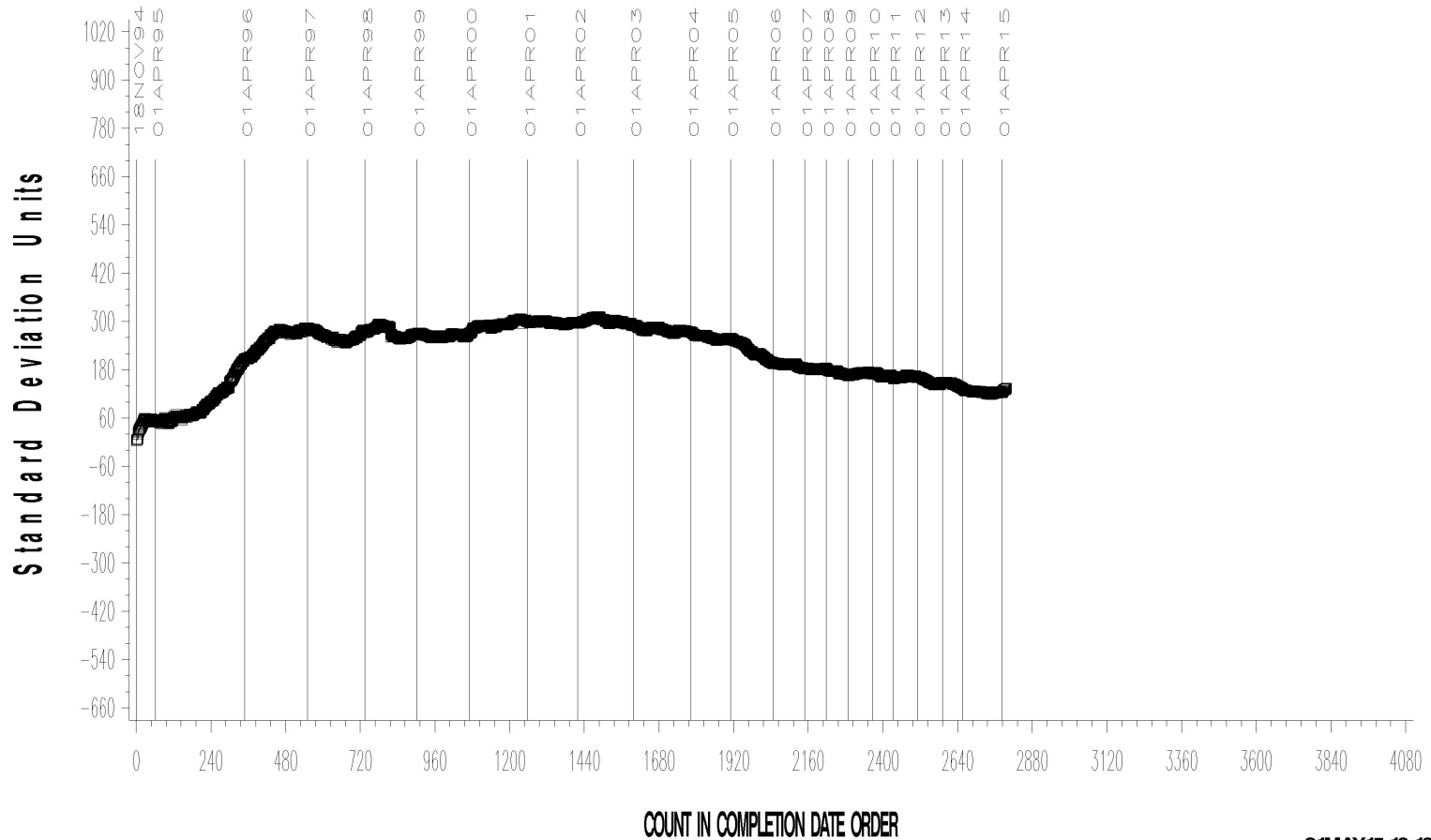
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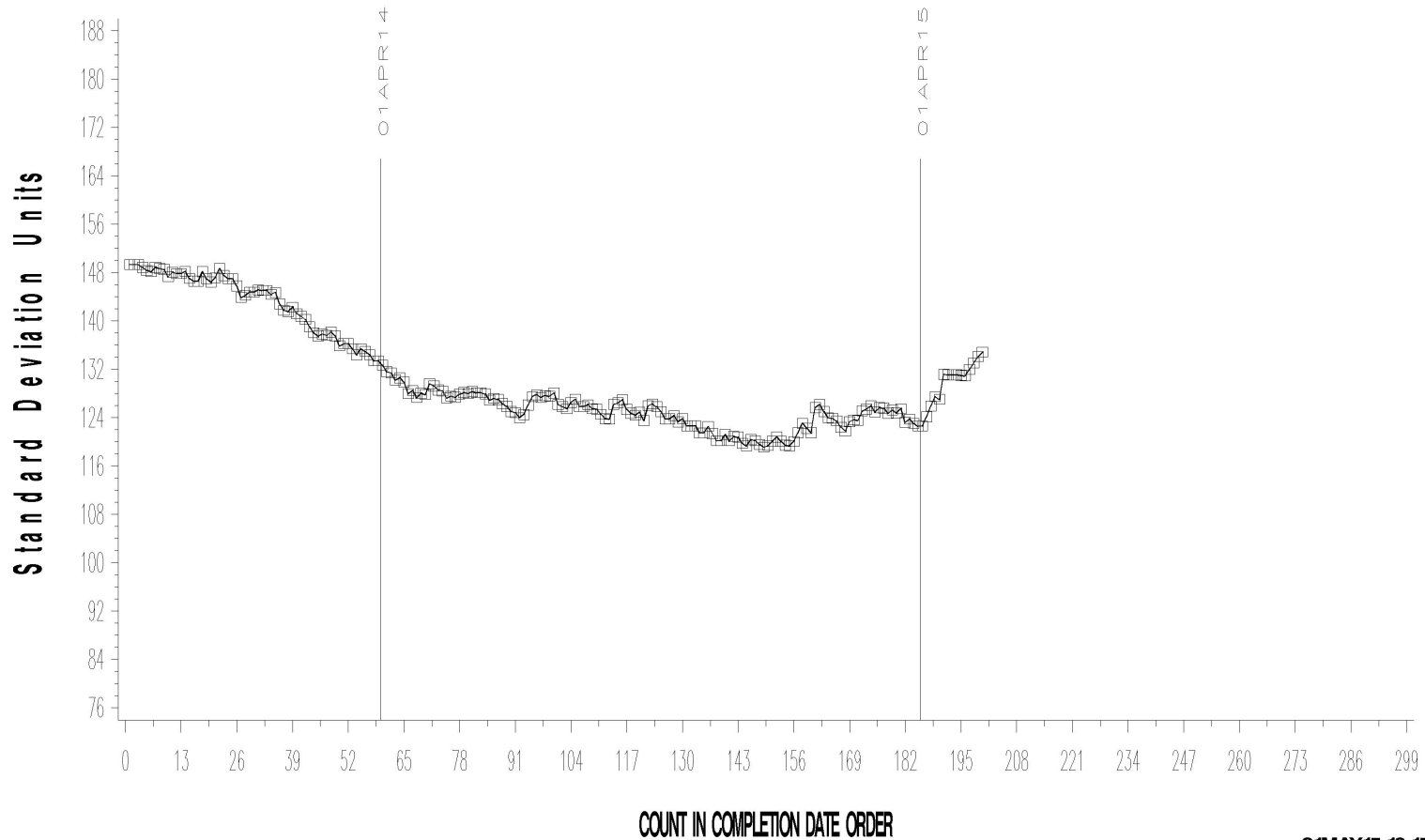
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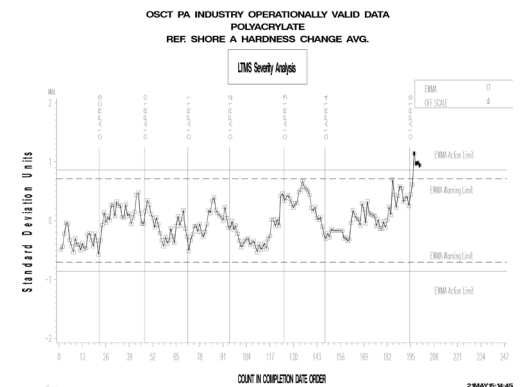
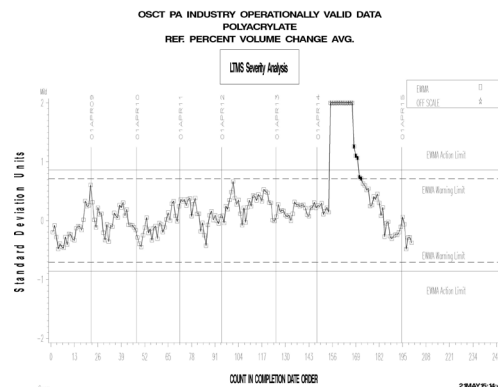
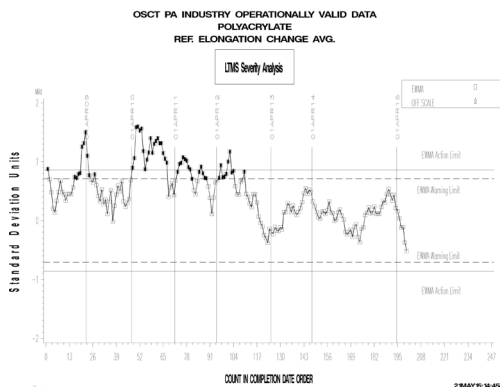
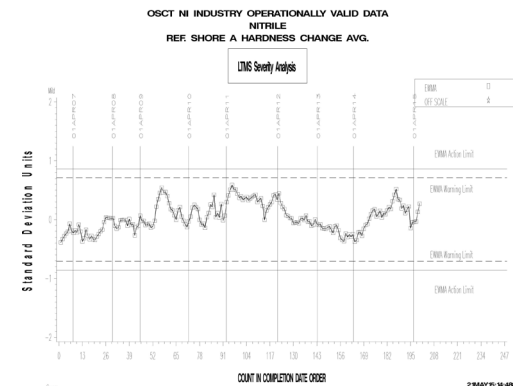
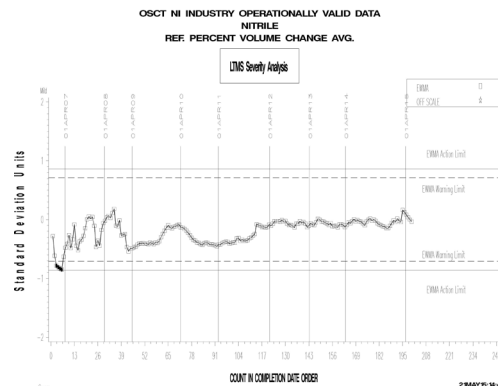
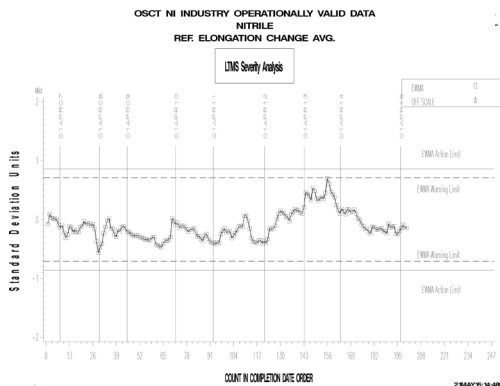
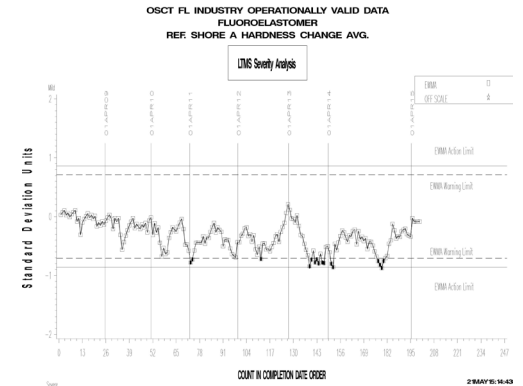
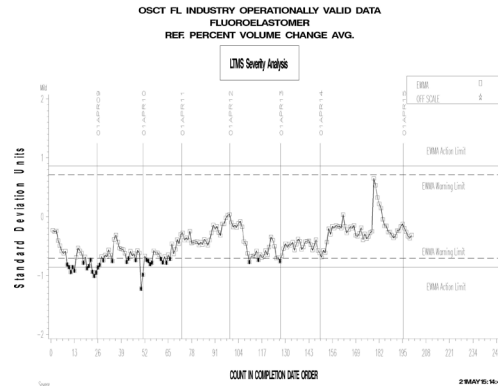
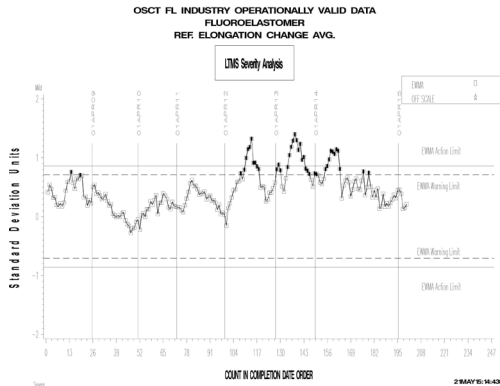
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OSCT (D5662)

BY-ELASTOMER SEVERITY



OSCT (D5662)

TIMELINE ADDITIONS

Effective Date	Information Letter	Event
		No timeline additions were made this period.

OSCT (D5662)

LAB VISITS

No OSCT lab visits were conducted during this period.

INFORMATION LETTERS

No information letters were issued this period.

OSCT (D5662)

STATUS OF REFERENCE OIL SUPPLY

Oil	Cans @ Labs	@ TMC	
		Cans	Gallons
160-1	32	214	42.4
161-1	1	0	0.0
168	33	23	4.6
169	29	1103	218.7
Total	95	1340	265.8

Oil 161-1 has been depleted from TMC inventory. A reblend is not available. Oil 169 has been introduced as a replacement. Oil 168 is nearing depletion and is not re-blendable. The OSCT Surveillance Panel has identified a potential replacement oil and is planning introduction soon.